

Comparison of Power Performance between Passive and Active Warm-Up Protocols

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ABSTRACT

Foam rolling and static stretching are passive interventions designed to improve flexibility and motor performance. Dynamic exercises (active modalities) may create an optimal environment for power production. **PURPOSE:** to compare the acute efficacy of power output between passive and active warm-up protocols. **METHODS:** In a crossover study, ten active subjects (male=5, female=5) were randomly assigned to either passive or active warm-up intervention on the first session and switched to the other intervention on the second session. The passive intervention includes one set of foam rolling on the front of the hip for both legs in the prone position with 30 seconds per leg and one set of the Half-Kneeling Hip Flexor Stretch with 30 seconds per leg. The active intervention includes performing one set of the Bulgarian Split Squat for 15 repetitions and one set of the Kettlebell Swings for 15 repetitions. Each participant performed the prisoner squat jump for three repetitions, and a position transducer was used to obtain the power output of each repetition to calculate the average. **RESULTS:** The findings showed that there were no significant differences between the passive intervention and active intervention for average power, partial average power, and peak power ($P > .05$). **CONCLUSION:** The findings suggest that either active or passive intervention can be performed before power exercise.